

COPY**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Noboru Segawa

Attorney Docket No.: SIP1P045

Application No.: 09/787,932

Examiner: K.B. Addison

Filed: 21 March 2001

Group: 2834

Title: MOTOR

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on February 12, 2002.

Signed: 

Agnes Spence

AMENDMENT TRANSMITTAL**FAX RECEIVED**

Commissioner for Patents
Washington, DC 20231

MAR 07 2002**T.C. 2800**

Sir:

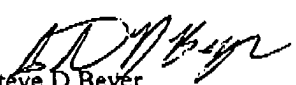
Transmitted herewith is an Amendment in the above-identified application.

The fee has been calculated as shown below.

| | Claims After Amendment | | Highest Previously Paid For | Present Extra | Small Entity Rate Fee | Large Entity Rate Fee |
|--|------------------------|-------|-----------------------------|---------------|-----------------------|-----------------------|
| Total Claims | 4 | MINUS | 20 | 0 | x 9 = | x 18 = 0 |
| Independent Claims | 1 | MINUS | 3 | 0 | x 42 = | x 84 = 0 |
| Multiple Dependent Claim Present and Fee Not Previously Paid | | | | | \$140.00 | \$280.00 |
| Total | | | | | \$ | \$0 |

- ☒ Applicant(s) hereby petition for a one month extension(s) of time to respond to the aforementioned Office Action.
- ☒ Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition that such an extension be granted and authorize the Commissioner to charge the required fees for an Extension of Time under 37 CFR 1.136 to Deposit Account No. 500388.
- ☒ Enclosed is our Check No. 14014 in the amount of \$110.00 to cover the additional claim fee and/or extension of time fees.
- ☒ Please charge the required fees, or any additional fees required to facilitate filing the enclosed response, to Deposit Account No. 500388 (Order No. SIP1P045).

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP


Steve D Beyer
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MAR-07-2002 10:42

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FACSIMILE COVER SHEET

March 7, 2002

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09/787,932 (SIP1P045)

Pages Including Cover Sheet(s): 8

MESSAGE:

Please see attached.

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PATENT

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#5/Ext. w/a
Hawkins
3/7/02**CERTIFICATE OF MAILING**

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Signed: _____

Agnes Spence

AMENDMENT A

Commissioner for Patents
Washington, D.C. 20231

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MAR 07 2002

T.C. 2800

Dear Sir:

In response to the Office Action dated 24 October 2001 please amend the above-identified patent application as follows:

In the Claims:

Please add the following new claim:

a' 4. The motor of claim 3 wherein the motor is mounted and operates within a cellular telephone.

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REMARKS

The Examiner is thanked for her thoughtful review of the pending application.

Claims 1 through 3 are pending in this application. Dependent claim 4 has been added by this amendment. Applicant does not believe that the claim presents new matter.

Claims 1 through 3 are rejected under 35 U.S.C. 103(a) as unpatentable over the combination of A. Tomimaru et al., Japanese Patent Abstract Publication No. 11-136327 (Tomimaru) and M. Mizutani et al., Japanese Utility Model Laid -Open No. 79170/1990 (Mizutani).

A motor is claimed in claim 1 wherein the voltage-supplying terminal is located at the rear of the motor, at the opposite end from the output shaft, the terminal shaped to provide an elastic force orthogonal to the output shaft when compressed by the motor's weight when resting on the voltage-supplying terminals. This elastic force helps to stabilize the motor during assembly while simultaneously ensuring proper electrical contact with voltage-supplying contacts on the printed circuit board upon which the motor is mounted during both assembly and operation.

Tomimaru suggests an electric motor with two electrode contacts located near the middle of the motor body. Two helical springs form the electrodes and permit electrical current to flow from a printed circuit board into the motor. Although the force generated by the springs is orthogonal to the motor, the location of the springs in the mid-portion of the motor body means that the springs cannot stabilize the motor in position once the motor has been placed down on these contacts. Rather, Tomimaru results in this environment in a motor precariously balanced on two helical springs, the ends of which cannot provide much surface area to support the motor, let alone insure secure electrical contact during assembly and operation. The arrangement of Tomimaru is even more unreliable as the terminals are so close to the source of vibration. The rear mounted voltage-supplying terminal of the present invention thus contrasts significantly with Tomimaru.

Mizutani is cited to show a connecting terminal having a first, second and third portion similar to the present invention. Mizutani's figures suggest that although the terminal is bent in a manner outwardly similar to the terminal of the present invention, the bent terminal of Mizutani only provides a bias force that provides somewhat more secure electrical contact between the motor and current supplying leads or printed circuit board traces. The location of Mizutani's contacts is still at the middle portion of the motor and nothing in the abstract or figures suggests that the contacts provide or are intended to provide balancing spring force to stabilize the motor on its

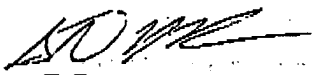
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contacts during assembly. Indeed, Mizutani's figures suggest that a completely separate mounting structure supports and holds the motor during assembly and operation.

The combination of Tomimaru and Mizutani cannot therefore anticipate independent claim 1, which locates the voltage-supplying terminal at the rear of the motor, as far as possible from the source of vibration at the output shaft. The combination of these references would only result in a leaf spring-like terminal at the motor's midpoint, which teaches away from the present invention as set forth in claim 1.

As claim 1 is distinguishable from the cited combination of references, applicant believes that it and dependent claims 2 through 4, claim 4 having been added by this amendment, are allowable. Applicant respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



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